

REMARKS/ARGUMENTS

§101 Rejections

The Examiner rejected claims 1-52 on the basis that the claims did not recite a connection to the use of a computer or other technology. Applicant has amended each of the independent claims to specify that they are directed to computer-implemented methods. Thus, Applicants respectfully assert that the §101 rejection has been overcome.

§102 and 103 Rejections

The Examiner rejected claims 1-3, 5-11, 13-24, 26-30, 32-39, 41-46 and 48-52 under 35 U.S.C. §102(e), as being anticipated by U.S. Patent No. 6,321,205 of Eder ("Eder"), and rejected claims 4, 12, 25, 31, 40 and 47 under §103(a), as being unpatentable over Eder in view of U.S. Patent No. 6,456,982 of Pilipovic ("Pilipovic"). For the reasons stated below, Applicant asserts that all of the pending claims are allowable over the prior art of reference.

General contextual comments

The Examiner rejects most of the claims on the grounds that they are anticipated by "Eder", and the balance based on obviousness given Eder and Pilipovic. Eder and the present invention both refer to certain deficiencies of traditional financial accounting and reporting. Both draw on certain common financial analysis techniques. However, Eder and the present invention in fact attempt to solve quite different problems, and are based on fundamentally different approaches.

The essential problem that Eder attempts to solve is to incorporate intangible assets into business valuation. Eder proposes methods by which enterprise value can be calculated based on a combination of current asset values, value for current business operations, and future growth. (C6, L15-25). Eder describes methods by which the components used to calculate the value for current business operations – namely, revenue, expense, and capital – can be related to intangible "elements of value", such as brand names, the customer base, employees, strategic alliances, vendors, etc. More generally, Eder describes a system that

enables a user to determine how various "value drivers" influence the value of a business as determined by a combination of conventional business valuation techniques.

The present invention describes a new approach to measuring business performance that is based not on past transactions (as in traditional accounting), but on modeling the potential of a business to create value in future. Key aspects of the present system that represent departures from traditional practice include:

- Focusing on individual value streams (both financial and non-financial) as the basic "unit of measure" for tracking value creation
- Linking all assumptions about value streams to past or future events
- Recognizing interdependencies between non-financial value streams and financial value streams
- Designing the system to analyze value creation performance from the perspective of multiple stakeholders, rather than only shareholders as is the traditional practice
- Designing a high degree of transparency into the system, by enabling users and groups of users to see for themselves the effect of utilizing various alternative sets of assumptions in varying levels of detail
- Permitting stakeholders to interact directly with the system in real time to influence outcomes
- Designing the system so that it is capable of generating continuously updated value creation outcomes in real time as events unfold

Furthermore, as just outlined, the present invention assesses individual value streams based on assumptions tied to *future events* whereas, although Eder talks about "predictive models" (Fig. 1), these predictive models are based on mathematical relationships derived from *past* data (how past 'value drivers' related to past valuations over various past dates). While Eder uses complex prior-art mathematics (Markov Chains, Monte Carlo Methods, Neural Networks, Option-Valuing Equations, Genetic Algorithms, etc.), they are all focused on analyzing *past* data in order to optimize Eder's so-called 'predictive models'. Although such an approach can be useful for, say, short-term trading (where past volatility is likely to have some influence on tomorrow's price swings) it breaks down when one looks into a

longer future that may involve new processes, new markets, new competitors not captured in past data. That is why the present invention explicitly focuses on *explicit assumptions* as to the *future*, with each assumption tied to future and past *events*, the assumptions changing over time as events occur.

The system and method of the present invention is the subject of several patent applications that are currently before the USPTO. The disputed claims in 09/574,569 deal with two aspects of the system and method: namely, the role that “value streams” and “events” play in the system and method.

As will be asserted in more detail below, a key aspect of the present invention is the ability to track the creation of value by a business enterprise over time. The way this is accomplished is by:

- Modeling separately each value stream of a business enterprise. Value streams are defined in the specification.

Eder does not take the same approach at all. The approach that Eder takes is quite specifically to generate a valuation of a business enterprise (or a division of that enterprise) as a whole. The method by which Eder does this does not involve modeling the individual value streams of a business enterprise. Eder takes a completely different approach, which has as its objective the valuation of intangible assets, not the modeling of individual value streams.

- The value potential of each value stream is modeled by specifying a set of assumptions, and linking each and every assumption to one or more specific underlying events. An event is not simply the same as the passage of time: an event is something that occurs, or does not occur at a specific point in time. It is not ambiguous whether or not an event occurs: as an example, an enterprise either did or did not achieve a 20% market share in the month of April 2004.

The purpose of this procedure is to be able to monitor and track changes in the value potential of each value stream as events unfold. When events occur, some

events may confirm previous assumptions, while other assumptions may be recognized as erroneous if actual events turn out differently than anticipated.

As explained in greater detail below, Eder is not at all concerned with linking assumptions to events or tracking how the occurrence or non-occurrence of specific events affects the outcomes of Eder's valuation model.

Another key aspect of the present invention is the ability to model value creation outcomes from the separate perspectives of different stakeholder groups. As explained below, by contrast, Eder is concerned only with calculating an enterprise valuation from a shareholder perspective.

In sum, while there is a similar starting point, Eder and the claimed invention immediately diverge into quite different solutions generating entirely different results based on fundamentally different methods. Because Eder and the present invention both adapt, in different ways, some time value of money concepts and techniques, there are some superficial similarities. However, these quickly disappear based on a careful technical analysis, as set forth below.

I. Rejections based on Eder.

A. Independent Claim 1.

1. The Method of Claim 1 Relates to *Creating Value* by a Business.

On page 6 of the Office action, the Examiner asserts that Eder discloses "an automated system and method for evaluating the probable impact of changes in business value and future value of a commercial enterprise accounting for tangible assets as [sic] intangible assets". (C1, L17-L54)

This statement is accurate as it relates to Eder. However, the claimed invention, by contrast, is not concerned with valuation of a business enterprise, nor with intangible assets. The terms "valuation" and "intangible" do not appear anywhere in the present application. The claimed methods of the present invention are focused on measuring performance in *creating value* by a business enterprise. Traditional accounting measures value realized by a business enterprise based on past transactions. By contrast, the methods of the present

invention relate to measuring performance by a business enterprise in *creating value* based on past and future events.

The methods disclosed in the present invention are focused on measuring performance in creating value by a business enterprise by modeling the value creation potential of the individual value streams of a business enterprise. There is no suggestion that the value streams of a business enterprise are equivalent to specific tangible or intangible assets.

Traditional accounting measures value realized by a business enterprise based on past transactions. By contrast, the methods disclosed in the present invention relate to measuring value creation of a business enterprise by modeling the value creation potential of individual value streams, based on past and future events.

Measuring value created by a business enterprise is not the same as calculating a valuation of a business enterprise. The former is intended to measure performance *over time* of the business enterprise; the latter is intended to determine the price that a buyer might be prepared to pay for the enterprise *at a point in time*.

Therefore it cannot be correct to assert that Eder discloses “a method of processing data relating to the performance of a business enterprise in creating value.” Because Eder does not disclose this element of claim 1, Eder cannot anticipate claim 1.

2. Developing a Data Structure including assumed variables with an influence on a future financial value stream and at least one future or past event that influences the assumed variable.

The Examiner further asserts that Eder refers to “developing a data structure including one or more assumed variables that have an influence on a future financial value stream of the business enterprise and at least one future or, [sic] past event for each assumed variable that influences the corresponding assumed variable”. (C12 L3-L8; C17 L5 – C18 L12; C19 L3-L20).

One cannot conclude based on the cited references that Eder discloses or suggests the above-referenced limitation. The nature of the data structures is entirely different, as is the method of processing and the result. The following presents a clear description of the contrasting methods of Eder and the claimed invention.

Eder aims at creating the ability to generate a report such as the ValueMapTM report disclosed in Figure 14. This report resembles a traditional balance sheet with the crucial difference that instead of disclosing book values calculated in accordance with Generally Accepted Accounting Principles (GAAP), Eder's ValueMapTM is intended to show the overall valuation of a business enterprise, and show how that valuation breaks down into various elements of value.

As disclosed in C5, L38 – C6, L25, Eder calculates the valuation of a business enterprise by aggregating three values:

- The value of certain assets of the business, using values determined in accordance with GAAP (i.e., Generally-Accepted Accounting Principles)
- The value of “current-operation”; and
- The value of “growth options”

The value of “current-operation” is calculated by aggregating three “components” of current-operation value: Revenue, Expense, and Capital. While Revenue is not subdivided further, both the Expense and Capital components are divided into sub-components, as specified in C11, L23-35.

The components and sub-components of current-operation value are used to calculate the value of the tangible and intangible elements of value. An element of value is defined in C11, L39-43 as “an identifiable entity or group that as a result of past transactions has provided and is expected to provide economic benefit to the enterprise.” Customers are identified as an example of an element of value. Predictive models are used to allocate how much Revenue, Expense, and Capital is related to each element of value.

The key processing steps in Eder are:

- Identification of the components of value (Revenue, Expense, and Capital) and relating these to underlying data in the company's accounting and other systems.
- Developing models that relate "item variables and item performance indicators" (i.e., value-drivers) to Revenue, Expense and Capital, and can be used to calculate values for Revenue and the various sub-components of Expense and Capital.
- Developing models that calculate a valuation for various growth options. Growth options are also calculated using Revenue, Expense, and Capital components / sub-components.
- Calculating a present value for the Revenue, Expense and Capital components/sub-components of value by assuming a growth rate, and using the formula disclosed in C37, L60 – C38 – L9.
- Subdividing the values calculated for Revenue, Expense, and Capital into the various "elements of value" such as Brandnames, Customer Base, Employees, Strategic Alliances, and Vendors.
- Assembling the resulting values into management reports such as that in Figure 14.

By contrast, the methods disclosed in the present invention aim at an entirely different result, using entirely different types of variables, and are carried out in an entirely different manner. To differentiate Eder and the present invention in this context, it is useful to make two fundamental points:

- a) Eder does not deal with value streams, as recited in the claimed invention;
- b) Eder does not in any way anticipate the present methods relating to modeling individual value streams based on assumptions linked to "events", as recited in the claimed invention.

We will deal with each of these in turn.

a) Eder does not deal with value streams, as defined in the present invention

The present invention focuses on the analysis of value streams. A value stream for a business enterprise is defined in the present invention as “an aggregation of financial and non-financial benefits flowing to the business and arising from a minimum set of activities that are necessary to give rise to the benefits.”

The present specification points out that value streams can be historical or future, and financial or non-financial.

As an example of how value streams work in the present invention, consider an individual drug that forms part of the portfolio of a pharmaceutical company. The value stream associated with that specific drug can be modeled as a stream of financial benefits flowing to the organization over time. In addition, if the drug happened to be a cure for cancer, there could also be non-financial benefits, such as enhancement of the company’s reputation. In both cases, the value streams could be related to a minimum set of activities required to give rise to the benefits: in this case, the company’s development and promotional activities related to the specific drug.

A model according to the present invention for such a pharmaceutical company would be concerned with analyzing the value streams associated with each individual drug in the company’s portfolio.

By contrast, Eder does not disclose any methods for the analysis of individual value streams. In C11, L16-35, Eder breaks Value of current-operation down into three components: Revenue, Expense, and Capital. Of these, the only one that could possibly bear any resemblance to a value stream as defined by the present invention is Revenue. But while Expense and Capital are further broken down into sub-components for analysis, Eder specifically notes that “the revenue value is not subdivided”. Again in C19, L18 and C19, L22, Eder notes that “there is only one revenue component per enterprise” and “each

enterprise has one revenue component.” Per Eder, an “enterprise” can be replaced with a division of that enterprise, but not, as in the present invention, by individual value streams.

Eder does not disclose methods for generating a value for Revenue based on modeling revenue streams for individual products or technologies. Rather, Eder is focused on analysis of “elements of value”. As per C11, L39-52, “for the calculations completed by the present invention, an element of value will be defined as ‘an identifiable entity or group that as a result of past transactions has provided and is expected to provide economic benefit to the enterprise.’ ... Predictive models are used to determine the percentage of: the revenue value, the expense value sub-components, and the capital value sub-components that are attributable to each element of value. The resulting values will then be added together to determine the valuation for different elements as shown by the example in Table 4.”

Comparing Eder’s definition of “elements of value” and the present invention’s definition of value streams demonstrates that we are dealing with quite different concepts. Eder’s “identifiable entity or group” is clearly not the same as the present invention’s “aggregation of financial and non-financial benefits flowing to the business and arising from a minimum set of activities that are necessary to give rise to the benefits.” These differences are entirely consistent with the fundamentally different approaches taken by Eder and the present invention. The methods that Eder discloses are focused on calculating the valuation of tangible and intangible assets as a percentage of the total valuation for the enterprise as of a specific point in time. By contrast, the present invention methods focus on modeling the value potential of individual value streams over time, and are not designed to determine the valuation of the overall enterprise or the tangible and intangible assets. In sum, Eder does not disclose methods that relate to value streams.

b) Eder does not in any way anticipate the claimed methods relating to modeling individual value streams based on “events”.

The methods by which value streams are analyzed in the present invention do not rely in any manner on the methods in Eder related to the identification of components of value (Revenue, Expense, Capital), the relationship of components of value to elements of value, or the methods by which values are modeled.

It is of course true that the present invention, like Eder, uses models in which results are calculated based on certain underlying variables. This is, of course, true of any model. It is also true that in both claimed invention and Eder, some of the results are calculated in part using time value of money concepts and formulas. This is true of any model in which the time value of money is a relevant factor. In other words, both Eder and the present invention draw on certain conventional “tools of the trade”. The fact that Eder happens to use some of these same tools (which predate Eder) cannot be used to assert precedence for Eder over the present invention, unless it can be shown that Eder uses the same tools in the same way. This, however, is not the case.

Key to the methods disclosed in the present invention is the relationship between value streams and events. In the present invention, each assumption that is used to calculate a value stream is tied to one or more past or future events. The present invention is described as being “event-driven”, in that each assumption is based one or more past or projected events that have or are expected to influence the related assumption. A key aspect of the analysis provided by the present invention is the degree to which the occurrence or non-occurrence of events changes the expected benefits associated with a value stream.

The concept of “events” as key variables is entirely absent from Eder. The word “event” only occurs once in the Eder specification (C15, L39) as one attribute of sales management systems. There is no suggestion anywhere in Eder that the components of value, elements of value, or value drivers (i.e., item variables and item performance indicators) are in any way tied to events.

Eder does mention in C17, L54-55 that some of the data used in an Eder model will relate to the future. However, the use of future-oriented data, or more generally doing calculations related to future time periods, is not the same as relating assumptions to events. It is important to distinguish between time, or subdivisions of time, and events. It is true that all events occur in time. It is also true that if an event occurs, it does so at a specific time. However, whether events occur or do not occur, or whether they occur when anticipated, are variables that are for modeling purposes are independent of time, or sub-divisions of time per se.

There is no suggestion in Eder that any variables are linked to specific events, let alone an assertion, as in the present invention, that *each and every assumed variable is linked to one or more events*. Again, however, this is consistent with the contrasting objectives of Eder versus the present invention. Eder is focused on calculating a valuation of tangible and intangibles assets in relation to an overall enterprise valuation as of a point in time. The present invention, by contrast, is focused on analysis of changes in value potential of individual value streams as events unfold over time.

Since Eder does not even mention events anywhere in relation to the variables used in the methods disclosed by Eder, it is therefore not possible to conclude, as the Office Action indicates, that Eder discloses “developing a data structure including one or more assumed variables that have an influence on a future financial value stream of the business enterprise and at least one future or, [sic] past event for each assumed variable that influences the corresponding assumed variable”.

Because Eder does not disclose these elements of claim 1, Eder cannot anticipate claim 1 on this independent basis.

3. Determining a first present value of the future financial value stream.

The Examiner further asserts on page 6 of the Office action that Eder discloses “determining a first present value (PV) of the future financial value stream of the business

enterprise by aggregating the influences on the future financial value stream attributable to the assumed variables and adjusting the future financial value stream for a time value of money.” (C10 L41 to C12 L30; C17 L47-L67).

It is true that both Eder and the present invention generally use methods that include adaptations of conventional present value concepts and formulas. However, Eder uses present value formulas for purposes of calculating the overall value of a business enterprise, which value is then subdivided by the methods disclosed in Eder to the various elements of value.

By contrast, the claimed invention uses present value formulas relating to a future financial *value stream* of a business enterprise, for purposes of analyzing the implications for that value stream of the occurrence or non-occurrence of specified events.

In effect, Eder is interested primarily in understanding the value of tangible and intangible assets as elements of the value of the enterprise as a whole. As noted in section A.2.a. above, Eder does not disclose methods related to individual value streams at all, let alone methods for calculating the present value of individual value streams.

For these reasons, Eder does not disclose determining a present value of a future financial *value stream*, as recited in the claimed invention. Because Eder does not disclose this element of claim 1, Eder cannot anticipate claim 1 on this independent basis.

4. Determining, in response to the occurrence or non-occurrence of past or future events, whether the assumed variables and influenced future financial value stream has changed.

The Examiner further asserts that Eder discloses “determining, in response to the occurrence or non-occurrence (different valuation methodology) of one or more of the future events, whether one or more of the assumed variables (estimated) have changed and whether

the influenced future financial value stream has changed (comparing current value and previous value with different elements).” The Examiner cites the following excerpts of Eder in support of this assertion:

(C5 L16-C6 L64) This portion refers to the ability of a user to “track the changes in elements of business value and total business value over time by comparing the current valuation to previously calculated valuations.” However, there is no suggestion that the differences between a current and a prior valuation have anything to do with the occurrence or non-occurrence of one or more specified events.

(C24 L20-L33) This portion refers to Block 304 “Calculate item performance indicators”, and deals with the methods by which values for value drivers that are performance indicators are calculated. This reference deals with the methods by which historical performance indicators, drawn from the company’s system, are calculated. There is no suggestion of any relationship between performance indicators and future events.

(C35 L35 to C37 L20) This portion deals with the definition of growth option scenarios and related calculations. Eder indicates that a number of scenarios may be defined for each growth option. The probability of each scenario is specified as a percentage, with the sum of the growth options scenarios equal to 100%. There is no suggestion that growth option variables, or the probabilities attached to the growth options scenarios are in any way related to events.

(C44 L7-67) This portion deals with the generation of management reports. Reference is made here to the potential to generate a report that “highlights changes in the elements and sub-elements of business value during the period between the prior valuation and the current valuation date.” However, there is no suggestion that the difference between the valuations calculated at different dates is in any way related to the occurrence or non-occurrence of specific events.

(C45 L57 – C46 L4) This portion deals with comparisons between market value for a business entity and valuation as calculated by the Eder system, and how the system responds if there is more than 60 days between the date of the current valuation and the current system date. Again, there is no reference to the occurrence or non-occurrence of specific events.

In sum, there is no reference anywhere in the Eder specification to the “occurrence or non-occurrence of events.” There is no reference anywhere in Eder to scenarios that are related to events. Eder refers in C46, L47 to the ability of users to make changes in value drivers in order to understand the impact of these changes on the value of the enterprise. However, there is no suggestion in Eder that changes in value drivers that impact enterprise value are related to events, or the occurrence or non-occurrence of events.

Because Eder does not disclose this element of claim 1, Eder cannot anticipate claim 1 on this independent basis.

5. Determining a second present value of the future financial value stream taking into account the altered assumed variables changed in response to the occurrence or non-occurrence of the one or more future events.

The Examiner further asserts Eder discloses methods for “determining a second present value of the future financial value stream taking into account the one or more assumed variables that changed in response to the occurrence or non-occurrence of the one or more of the future events.” (C28 L13-L60 and C33 L24-45). The cited portion of Eder refers to methods that Eder uses to calculate and refine revenue-related value drivers. These references have nothing to do with present value calculations, which take place in a different processing step. There is also no reference here to relationships between variables and events.

It is therefore not possible, on the basis of these citations, to conclude that Eder discloses this limitation of the claimed invention. Because Eder does not disclose this element of claim 1, Eder cannot anticipate claim 1 on this independent basis.

Furthermore, it should be noted that it is in fact impossible to use the methods disclosed in Eder to obtain the results that are obtained from the methods described in the present invention.

A key aspect of Eder's system is to derive relationships between value components, value elements, and value drivers from detailed *past* information drawn from the accounting and other information systems of the enterprise.

By contrast, an aspect of the claimed inventions involves defining relationships between key variables and *future* events. An analysis contemplated by the present invention cannot be created simply based on mining company databases for historical performance indicators. It requires instead a process of specifying, in advance, the impact of future events on key variables, and then tracking the future impacts as events actually occur.

Eder's methods cannot be used to relate the changes in value between one point of time and another point in time to the specific occurrence or non-occurrence of defined events. To accomplish this task requires application of the methods disclosed in the present invention, which are not disclosed in Eder.

For all of the foregoing independent reasons, Eder cannot anticipate claim 1 or any claims depending from claim 1 (e.g., claims 2-8).

B. Dependent Claim 2.

For all of the reasons listed above, Eder does not anticipate claim 2. Claim 2 is further independently patentable over Eder for the following reasons.

The Examiner asserts that Eder discloses “wherein determining the first present value further comprises adjusting the future financial value stream by an assessed probability that the influences on the future financial value stream will be realized, and determining the second present value further comprises adjusting the future financial value stream by an assessed probability that the influences on the future financial value stream will be realized taking into account an assessed probability that changed in response to the occurrence or non-occurrence of the one or more of the future events.” The Examiner cites the following portions of Eder in support of this assertion.

(C35 L12 to C37 L20) This portion of Eder refers to the definition of growth option scenarios and related calculations. Eder indicates that a number of scenarios may be defined for each growth option. The probability of each scenario is specified as a percentage, with the sum of the growth options scenarios equal to 100%.

This reference does not meet the claim limitations for at least two reasons:

- a) The probabilities in Eder are attached to scenarios, not the assumptions related to a specific value stream. By definition, the Eder probabilities sum to 100%. In effect, Eder’s method calculates a weighted average outcome for a growth option taking into account all scenarios. By contrast, in the claimed invention, the probability factors do not necessarily sum to 100%, and are applied to calculate the expected value of a specific individual value stream.
- b) As noted above, there is no suggestion in Eder that growth option variables, or the probabilities attached to the growth options scenarios are in any way related to specified events.

(C5 table 1, to C6 L25) This portion of Eder refers to tables which lay out the methods by which Eder calculates the valuation of a business enterprise. These tables have no relevance to the methods the present invention uses to calculate the present value of

individual value streams based on events linked to assumptions, or to applying probabilities to the factors influencing those value streams, or to relating a change in probabilities to the occurrence or non-occurrence of specified events.

(C10 L41 to C12 L30) This portion refers to Eder's use of standard DCF techniques to derive an overall valuation of current-operation valuation which is then subdivided into components of value (Revenue, Expense, Capital), and for Expense and Capital, further subdivided into defined sub-components. These references do not disclose methods that are relevant to the claimed methods to calculate the present value of individual value streams based on events linked to assumptions, or to applying probabilities to the factors influencing those value streams, or to relating a change in probabilities to the occurrence or non-occurrence of specified events.

(C17 L47 – L64) This portion refers to the fact that Eder uses 3 years of historical data and 4 years of projected data on order to calculate a business valuation. The use of projected future data is Eder is not in any way similar to the methods of the claimed invention which involve specifying a specific relationship between defined events and assumptions. There is no suggestion in Eder that the system uses different datasets for the future that are linked to the occurrence or non-occurrence of specified events.

Because Eder does not disclose these elements of claim 2, Eder cannot anticipate claim 2 on this independent basis.

C. Dependent Claim 3.

For all of the reasons listed above, Eder does not anticipate claim 3. Claim 3 is further independently patentable over Eder for the following reasons.

With respect to claim 3, the Examiner asserts that Eder discloses methods "wherein the future financial value stream is associated with activities of the business enterprise

necessary to give rise to the events associated with the future financial value stream.” (Fig. 14 such as brand names, customer-base, etc.; ref. claim 1).

The word “activity” occurs only one in Eder (C19, L41) in a reference to an activity based costing system. There is no suggestion anywhere in Eder to methods by which activities of a business enterprise are linked to events.

It is noted in above that the present invention focuses on the analysis of value streams. A value stream for a business enterprise is defined in the pending application as “an aggregation of financial and non-financial benefits flowing to the business and arising from a minimum set of activities that are necessary to give rise to the benefits.” As an example of how value streams work in the pending application, consider an individual drug that forms part of the portfolio of a pharmaceutical company. The value stream associated with that specific drug can be modeled as a stream of financial benefits flowing to the organization over time. In addition, if the drug happened to be a cure for cancer, there could also be non-financial benefits, such as enhancement of the company’s reputation. In both cases, the value streams could be related to a minimum set of activities required to give rise to the benefits: in this case, the company’s development and promotional activities related to the specific drug.

The Figure 14 references cited are intangible assets, not activities of a business enterprise. Eder does not disclose methods that are related to individual value streams, or relate value streams to underlying activities and events. Therefore, it is not possible to conclude that Eder meets this limitation.

Because Eder does not disclose these elements of claim 3, Eder cannot anticipate claim 3 on this independent basis.

D. Dependent Claim 5.

For all of the reasons listed above, Eder does not anticipate claim 5. Claim 5 is further patentable over Eder for the following additional and independent reasons.

With respect to claim 5, the Examiner asserts that Eder discloses “changing one or more of the assumed variables, to form an alternate scenario including the changed assumed variables, and determining the present value of the future financial value stream based on the alternate scenario” and “comparing the present value of the future financial value stream based upon the alternate scenario to the first present value of the future financial value stream based upon the base case scenario.” In support of these assertions, the Examiner cites the following portions of Eder.

(C35 L35-L49) This portion refers to Eder’s methods regarding growth option scenarios. What is disclosed here is a method for defining a set of growth option scenarios, and assigning a probability to each scenario. The probabilities for all scenarios for a specific growth option total 100%. In effect, this discloses a method for calculating a weighted average of the scenario values for each growth option.

(C44 L7 – C46 L4) This portion refers to methods for comparing “changes in the elements and sub-elements of business value during the period between the prior valuation and the current valuation date” and also to comparisons between market value and calculated business value. There is no reference here to comparing the results of difference scenarios.

The concept of a “base case” scenario, against which alternative scenarios are compared, does not appear anywhere in Eder.

Neither of the cited references disclose methods that:

- a) apply to individual value streams;
- b) involve changing assumed variables to form an alternative scenario which is used to calculate the present value of a value stream;
- c) involve comparing two alternative present values for the same value stream, based on different assumptions.

Because Eder does not disclose the above-delineated limitations, Eder cannot anticipate claim 5 on these additional and independent bases.

E. Dependent Claims 6-7.

For all of the reasons listed above, Eder does not anticipate claims 6-7. Claims 6 and 7 are further patentable over Eder for the following additional and independent reasons.

With respect to claims 6 and 7, the Examiner asserts that Eder discloses “selecting a stakeholder perspective from among a plurality of stakeholder perspectives for determining the first and second present values of the future financial value stream, and selecting two of more stakeholder perspectives from among a plurality of stakeholder perspectives for determining the first and second present values of the future financial value stream.” Applicants respectfully disagree.

The concept or word “stakeholder” does not appear in Eder. The Examiner has evidently equated references to customers as “elements of value” in Eder, and reference to customers as stakeholders in the claimed invention. This interpretation cannot be justified when reading the claims.

A key concept in the claimed invention is the fact that value creation by an enterprise can be viewed from the perspective of a *plurality of stakeholders*. A shareholder is one type of stakeholder. A shareholder value perspective would focus on such things as dividends and stock price appreciation. A customer is another type of stakeholder. A customer value perspective would focus on such things as the benefits a customer receives from the products and services it acquires as well as from the overall long-term relationship it might have with the enterprise.

The methods disclosed in the claimed invention allow calculation of value creation from these differing perspectives.

Eder does not disclose methods related to calculating value creation from the perspective of a plurality of stakeholders. All of the valuation calculations disclosed in Eder relate to only *one* perspective: that of the shareholder, who is interested in enterprise value.

Eder does disclose methods for calculating the value contribution of the customer base as a component of enterprise value. In other words, Eder shows a method for calculating the amount of value that a stakeholder group (e.g., customers) contributes *to* the enterprise.

The present invention does exactly the opposite. The present invention calculates the value created by the enterprise *for the stakeholder*, from the stakeholder's own perspective. Or more specifically, with reference to claims 6 and 7, the invention provides methods by which comparisons between event-based value stream calculations can be viewed from the perspective of *a plurality of* different stakeholders. There is nothing analogous anywhere in Eder.

Because Eder does not disclose the above-delineated limitations, Eder cannot anticipate claims 6 and 7 on these additional and independent bases.

F. Dependent Claim 8.

For all of the reasons listed above, Eder does not anticipate claim 8. Claim 8 is further patentable over Eder for the following additional and independent reasons.

With respect to claim 8, the Examiner asserts that Eder discloses determining a variance between the first present value and the second present value taking into account the time value of money between the first and second dates; and attributing (Quantity) the variance between the first value and the second present value to events that occurred between the first and second dates.

The portions cited refer to Eder's use of time value of money concepts for purposes of calculating Value of current-operation, and the three underlying components: Revenue, Expense and Capital.

However, the references cited do not perform the following aspects of the claimed invention:

- a) Apply to individual value streams;
 - b) Apply to value streams calculated based on assumptions linked to events;
 - c) Describe methods for comparing the same value stream at different points in time;
- and
- d) Describe methods for attributing any variance in value between these two points in time to specific events that occurred between the two points in time.

Since Eder does not disclose methods that link the time value of money to event-based analysis, Eder does not include relevant limitations of the claimed inventions. Because Eder does not disclose the above-delineated limitations, Eder cannot anticipate claim 8 on these additional and independent bases.

G. Independent Claim 9.

Regarding claim 9, the Examiner asserts that Eder "discloses an automated system and method for evaluating the probable impact of changes in business value and future value of a commercial enterprise accounting for tangible assets as [sic] intangible assets."

While this may be true, it does not cover the relevant limitations of claim 9, which discloses a method for relating changes in the present value of event-based value streams to the occurrence or non-occurrence of future events.

Like claim 1, claim 9 includes elements relating to future financial value streams, and modeling value streams based on events. (A difference being that claim 9 relates to pluralities of value streams, rather than individual value streams.) Thus, in response to the rejection of claim 9, Applicants incorporate by reference all of the arguments cited above in regarding limitations relating to financial value streams and modeling value streams based on events.

It is worth reiterating again, however, that Eder does not deal with value streams at all, either singularly or in plurality. Eder discloses methods for calculating value of a business enterprise based on Revenue, Expense and Capital components of value, and elements of value such as Customer Base and Employees. None of Eder's methods relate to financial value streams or rely on relating key variables to events.

For all of these reasons, claim 9 and all claims depending from claim 9 (i.e., claims 10-16) cannot be anticipated by Eder.

H. Dependent Claims 10-16.

For at least the reasons listed above, Eder does not anticipate claims 10-16.

I. Independent Claim 17.

Like claim 1, claim 17 includes elements relating to future financial value streams and event-based modeling. Thus, in response to the rejection of claim 17, Applicants incorporate by reference all of the arguments cited above in regarding limitations relating to financial value streams and modeling value streams based on events.

With respect to claim 17, the Examiner asserts that Eder discloses "developing a data structure including one or more assumed variables that have an influence on a future financial value stream of the business enterprise and at least one future or past event for each assumed variable that influences the corresponding assumed variable." In support of this assertion, the Examiner cites the following portions of Eder:

(C12 L3-8) This portion refers to variables and item performance indicators that drive the components of value and calculated composite variables that characterize the performance of the elements of value.

(C17 L5 to C18 L12) This portion refers to valuation calculations that include 3 years of past data and 4 years of future data.

(C19 L3-L20) This portion refers to methods for relating underlying accounting data to Revenue, Expense, and Capital components of value.

The forgoing references cited make clear that Eder uses past and future data, which is common to virtually every financial modeling system ever invented. However, *none* of the references cited provide evidence that Eder discloses methods that relate assumed values to any events, let alone methods that link *each assumed value to at least one future or past event*, which is the case with the claimed invention.

For all of these reasons, claim 17 and all claims depending from claim 17 (i.e., claims 18-20) cannot be anticipated by Eder.

J. Dependent Claim 18.

Claim 18 includes a limitation similar to claim 2 relating to adjusting the future financial value stream by an assessed probability. Applicants incorporate by reference the comments relating to claim 2 found in Section B. above. For these additional and independent reasons, Eder cannot anticipate claim 18.

K. Dependent Claim 19.

Claim 19 includes a limitation similar to claims 6-7, relating to a plurality of stakeholder perspectives. Applicants incorporate by reference the comments relating to

claims 6-7 found in Section E. above. For these additional and independent reasons, Eder cannot anticipate claim 19.

L. Dependent Claim 20.

Applicants incorporate by reference the comments relating to the aggregation limitation of claim 1 found in Section A.3. above. For these additional and independent reasons, Eder cannot anticipate claim 20.

M. Independent Claim 21.

Like claim 1, claim 21 includes elements relating to future financial value streams and event-based modeling. Thus, in response to the rejection of claim 21, Applicants incorporate by reference all of the arguments cited above in regarding limitations relating to financial value streams and modeling value streams based on events.

Claim 21 further includes a limitation similar to claims 6-7, relating to a plurality of stakeholder perspectives. Applicants incorporate the comments relating to claims 6-7 found in Section E. above. For these additional and independent reasons, Eder cannot anticipate claim 21.

For all of these reasons, Eder cannot anticipate claim 21 or any claims depending from claim 21 (i.e., claims 22-28).

N. Dependent Claim 22.

Claim 22 includes a limitation similar to claim 2 relating to adjusting the future financial value stream by an assessed probability. Applicants incorporate the comments relating to claim 2 found in Section B. above. For these additional and independent reasons, Eder cannot anticipate claim 22.

O. Dependent Claim 23.

Claim 23 includes a limitation similar to claim 3 relating to activities of a business enterprise. Applicants incorporate by reference the comments relating to claim 3 found in

Section C. above. For these additional and independent reasons, Eder cannot anticipate claim 23.

P. Dependent Claims 24 and 27.

Claims 24 and 27 include limitations similar to claims 6-7, relating to a plurality of stakeholder perspectives. Applicants incorporate by reference the comments relating to claims 6-7 found in Section E. above. For these additional and independent reasons, Eder cannot anticipate claims 24 and 27.

Q. Dependent Claim 26.

Claim 26 includes a limitation similar to claim 5 relating to changing variables to create alternate scenarios. Applicants incorporate by reference the comments relating to claim 5 found in Section D. above. For these additional and independent reasons, Eder cannot anticipate claim 26.

R. Dependent Claim 28.

With respect to claim 28, the Examiner asserts that Eder discloses “repeatedly determining and presenting a series of updated present values of the future financial value stream, each updated present value determined from events and assumed variables in the data structure including any assumed variables that have changed in response to the occurrence or non-occurrence of one or more of the future events.”

In effect, the claimed invention discloses methods that could be used to update present values in real time *as events occur*. Eder makes reference to updating the model at a future date, but apart from that, there is nothing in Eder that references the occurrence or non-occurrence of events, and there is nothing in Eder that suggests a concept of applying Eder’s methods on a continuously updated basis as events occur or do not occur.

For these additional and independent reasons, Eder cannot anticipate claim 28.

S. Independent Claim 29.

Like claim 1, claim 29 includes elements relating to future financial value streams and event-based modeling. Thus, in response to the rejection of claim 29, Applicants incorporate by reference all of the arguments cited above in regarding limitations relating to financial value streams and modeling value streams based on events.

With respect to claim 29, the Examiner asserts that Eder discloses, among other things “identifying and segregating risks specific to the future financial value stream from risks specific to the business enterprise or industry as a whole, and assigning probabilities to the events or assumed variables based on the identified risks.” In support of this assertion, the Examiner cites the following portion of Eder:

(C35 L12 to C37 L20). This section refers to Growth Option Valuation and related scenarios. The reference cited makes no reference to the concept of risk at all. It could be argued that analysis of scenarios and probabilities implies the concept of risk. However, there is no disclosure in Eder of segregating risks specific to an individual value stream from risks specific to the business enterprise, because Eder does not deal with individual value streams at all. Eder’s methods focus on the valuation of a business enterprise, not individual value streams. It is therefore logically impossible to assert that Eder discloses the segregation of value stream risks from business enterprise risks.

With respect to growth options, there is similarly no discussion in Eder of relating probabilities to events or assumed variables based on risks. Eder assigns probabilities to various growth option scenarios (which is not the same as applying probabilities to events or assumed variables), but there is no disclosure of the basis of how that is done. Furthermore, while Eder discloses how the weighted average cost of capital is obtained (C23, L5) which is used in calculating present values, there is no discussion of using a different risk-adjusted discount rate for calculating the growth options.

For all of these reasons, Eder cannot anticipate claim 29 or any claims depending from claim 29 (i.e., claims 30-36).

T. Dependent Claim 30.

Claim 30 includes a limitation similar to claim 3 relating to activities of a business enterprise. Applicants incorporate by reference the comments relating to claim 3 found in Section B. above. For these additional and independent reasons, Eder cannot anticipate claim 30.

U. Dependent Claim 32.

Claim 32 includes a limitation similar to claim 5 relating to changing variables to create alternate scenarios. Applicants incorporate by reference the comments relating to claim 5 found in Section D. above. For these additional and independent reasons, Eder cannot anticipate claim 32.

V. Dependent Claims 33-34.

Claims 33 and 34 include limitations similar to claims 6-7, relating to a plurality of stakeholder perspectives. Applicants incorporate by reference the comments relating to claims 6-7 found in Section E. above. For these additional and independent reasons, Eder cannot anticipate claims 33 and 34.

W. Dependent Claim 35.

Claim 35 includes a limitation similar to claim 8. Applicants incorporate by reference the comments relating to claim 8 found in Section F. above. For these additional and independent reasons, Eder cannot anticipate claim 35.

X. Dependent Claim 36.

Claim 36 includes limitations regarding a plurality of value streams. Applicants incorporate by reference the comments above relating to value streams. Eder does not deal

with value streams at all, either singularly or in plurality. Therefore, Eder cannot anticipate claim 36.

Y. Independent Claim 37.

Like claim 1, claim 37 includes elements relating to future financial value streams and event-based modeling. Thus, in response to the rejection of claim 37, Applicants incorporate by reference all of the arguments cited above in regarding limitations relating to financial value streams and modeling value streams based on events.

Furthermore, claim 37 includes a limitation similar to claim 5 relating to changing variables to create alternate scenarios. Applicants incorporate by reference the comments relating to claim 5 found in Section D. above. For these additional and independent reasons, Eder cannot anticipate claim 37.

For all of these reasons, claim 37 and all claims depending from claim 37 (i.e., claims 38-43) cannot be anticipated by Eder.

Z. Dependent Claims 38-39 and 41-43.

Claims 38-39 and 41-43 are further patentable over Eder for the following reasons.

With respect to claim 38, Applicants incorporate by reference the comments made in Section B.

With respect to claim 39, Applicants incorporate by reference the comments made in Section C.

With respect to claims 41-42, Applicants incorporate by reference the comments made in Section E.

With respect to claim 43, Applicants incorporate by reference the comments made in Section X.

AA. Independent Claim 44.

Like claim 1, claim 44 includes elements relating to future financial value streams and event-based modeling. Thus, in response to the rejection of claim 44, Applicants incorporate by reference all of the arguments cited above in regarding limitations relating to financial value streams and modeling value streams based on events.

Furthermore, Applicants incorporate by reference the comments relating to claim 23 found in Section O. above. For these additional and independent reasons, Eder cannot anticipate claim 44.

For all of these reasons, claim 44 and all claims depending from claim 44 (i.e., claims 45-52) cannot be anticipated by Eder.

BB. Dependent Claims 45, 46, 48-52.

Claims 45, 46 and 48-52 are further patentable over Eder for the following reasons.

With respect to claim 45, Applicants incorporate by reference the comments made in Section C.

With respect to claim 46, Applicants incorporate by reference the comments made in Section B.

With respect to claims 48, Applicants incorporate by reference the comments made in Section D.

With respect to claims 49-50, Applicants incorporate by reference the comments made in Section E.

With respect to claim 51, Applicants incorporate by reference the comments made in Section F.

With respect to claim 52, Applicants incorporate by reference the comments made in Section X.

II. Rejections based on Eder and Pilipovic

The Examiner rejected claims 4, 12, 25, 31, 40 and 47 as unpatentable over Eder in view of Pilopovic. Because all of the references rely on the assumption that Eder discloses the data structure element of the claimed inventions, which includes the value stream and event-based components that have previously been discussed, the rejections of all of these claims must fail. That is, the combination cannot teach all of the elements of the claimed invention (e.g., the data structure, value stream and event-based modeling elements). Therefore, the rejections should be withdrawn with respect to these claims.

Furthermore, the rejections should be withdrawn for the following additional and independent reasons.

The Examiner rejects claims 4, 12, 25, 31, 40, and 47, all of which related to the calculation of a “reliability index”, and uses Pilopovic to support this element. In the claimed invention, the reliability index calculates that portion of the calculated value of a value stream which is based on events that have already occurred (and therefore are known), versus those events that have not yet occurred and are therefore not known.

The Office Action asserts that Pilipovic “discloses a reliability index (projection distribution) that is indicative of relative magnitudes of the present value of the future financial value stream attributable to past events and the present value of the future financial value stream attributable to future events.” The Examiner cites the following portions of Pilopovic in support of this assertion.

The cited Figure 14b refers to market price volatility measured over time.

(C1, L21 to C2, L50) This portion describes the background of Pilipovic as being related to mathematical and statistical techniques used to estimate the likelihood of future events.

(C3, L30-L38) This portion refers to calculating a “probability distribution” of future cash flow which could be used to determine the price that one could pay today in order to receive an uncertain cash flow.

(C16, L10-L16) This portion refers to the possibility of constructing such a probability distribution based on a statistical analysis of historical forward price behavior.

None of the references cited, however, are relevant to the “reliability index” described in the claimed invention.

The reliability index in the claimed invention is not analogous to a projection distribution in Pilipovic.

In the claimed invention, all assumptions that are used to calculate the present value of a value stream are related to past or future events.

It is therefore possible to separate out the assumptions that are linked to past events from those linked to future events. It is therefore further possible to calculate that portion of the present value of a value stream that is linked to past events from that portion of the present value stream that is linked to events that have not yet occurred.

As noted in the pending application, “the reliability index may be determined from the following formula:

$$\text{reliability index} = PV_p / (PV_f + PV_p)$$

where PV_p is the PV attributable to past events (and related assumptions) and PV_f is the PV attributable to future events (and related assumptions). The higher the result (expressed as a fraction of 1), the greater the reliability of the estimate. It will be apparent that PV_f and PV_p may be combined in another way to determine a reliability index.

The reliability index provides a comparative indication of the degree to which calculated outcomes (e.g., present values) are attributable to assumptions based on events that have already occurred, versus assumptions based on future events. For example, if future sales projections are based on achieving a certain market share, and that market share has already been achieved, one would be inclined to place more reliance on those projections than if all required market gains were still in the future.”

The reliability index in the present invention is *not* an attempt to determine the probability of future events. It is not based on developing a probability distribution of future events in order to make decisions. It does not “calculate and predict the uncertain future value forecast and goal to meet”.

Probability factors are used in the present invention to calculate the expected value of a value stream. But the use of probability factors in the present invention has nothing to do with the reliability index.

The reliability index in the present invention is a different concept. It differentiates between that portion of the present value of a value stream that is related to events that have already occurred, versus that portion of the present value that is related to events that are still to occur in the future.

The present invention’s reliability index does not differentiate between future events with a higher or lower probability. The only thing that matters is the difference between events that have already occurred in the past (where then outcome is known), and events that are still to occur in the future, where the outcome is still unknown.

Consequently, we would assert that in view of the fact that Eder does not disclose methods related to events, and that Pilipovic discloses methods related to probability

distributions which are not relevant to the claimed inventions' reliability index, it cannot be concluded that "it would have been obvious at the time the invention was made to a person having ordinary skills in the art in financial reliability and risk assessment to modify the disclosure of Eder and include reliability index, as taught by Pilipovic."

For all of these reasons, Applicants respectfully request all rejections to be withdrawn.

CONCLUSIONS

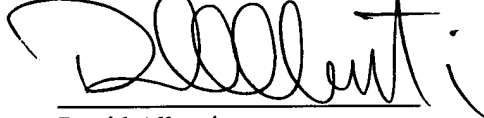
Applicants' invention is both novel and nonobvious over Eder and Pilopovic for all of the various reasons set forth above. Eder, Pilopovic and the combination of the two do not teach each and every element of any of Applicants' claimed inventions.

For all of these reasons, Applicants respectfully assert that all of claims 1-52 are in condition for allowance. The Examiner's early reconsideration is respectfully requested. If the Examiner has any questions, the Examiner is invited to contact Applicants' attorney at the following address or telephone number:

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Respectfully submitted,

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